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# Speech and Language Interventions

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**Speech and Language Interventions**

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BY

Holly Hajnal

Special Education

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## **Abstract**

In this review of literature, authors examined the effects of speech and language impairments and how to correct them. 15 studies were reviewed that compared when interventions should be implemented, what the best types of interventions are and how speech and language impairments affected children's development. The overall question is, How do interventions assist in correcting speech and language impairments? In order to answer this question, the questions, What are speech and language impairments? Do speech and language impairments affect children's psychological attitude? Do speech and language impairments affect children's behavior? Do speech and language impairments affect children's ability to learn? How are children with speech and language impairments viewed in society? What types of interventions are available? When should interventions begin? What are the most effective types of interventions? How much therapy is necessary to make an improvement? and How do children with language impairments compare to children without impairments? must be addressed.

Future research to further develop this theory include: comparison of children's ages and development of children with speech and language impairments, and comparison of social and economic background and the development of speech and language.

Speech and language disabilities are disabilities that affect a person's ability to use or comprehend language, articulate correctly, or express themselves. There are multiple interventions available that have been researched and tested. Children are more often affected by speech and language disorders in comparison to adults or adolescents due to different methods and interventions. There is disagreement on the most effective interventions.

Speech and language is defined as "Speech is the verbal production of language, whereas language is the conceptual processing of communication. Language includes receptive language (understanding) and expressive language (the ability to convey information, feelings, thoughts, and ideas). Language is commonly thought of in its spoken form, but may also include a visual form, such as American Sign Language...." (McLaughlin 2011). Speech and language impairments are defined as, a delay or lapse in speech or language that affects children's ability. They affect the child in social skills, academic achievement and the children's overall ability to communicate.

An issue related to speech and language disorders is the psychosocial and behavioral effects on children with these disorders. The goal of the article by Stansbury is to evaluate the relationship between language delays and behavioral or emotional problems in the future. She also discusses the role of the mother in child language development. It argues that if the mother is disturbed or unhappy she will most likely not interact with their children as much, which in turn will allow her child to fall behind developmentally. In the study, participants included 78 mother-child pairs living in Los Angeles metropolitan area as well as volunteer participants that were found by passing out flyers with advertisements about the study. The mothers completed questionnaires about their preschool aged child about their behavior problems and language. The study focused on how the mother/child pairs coped with negative emotion (Stansbury &

Zimmermann, 1999). A significant effect of child expressive language was found on mothers' use of the least sophisticated strategy, physical comforting. Similar to the finding for the overall comforting category reported above, children with higher expressive language skills had mothers who used more physical comforting to help them in the emotion regulation episodes. They found that it is very difficult to prove a causal relationship between behavior and language; however, there is a correlation (Stansbury & Zimmermann, 1999).

Unlike Stansbury, Snowling discusses whether or not speech and language impairments in preschool affect psychosocial abilities as children age. The study had participants that were chosen and re-evaluated at ages 4.5 years, 5.5 years and 8 years. Of the 87 children, 71 were available at the age of 15 for follow up study. The author performed assessments to address the student's academic development over time, the tests used included, "The cognitive assessment battery was administered to the current cohort at 15 years included two verbal (Vocabulary and Comprehension) and two performance subtests (Block Design and Picture Completion) from the Wechsler Scale of Intelligence for Children – III (Wechsler, 1992), and three subtests from the Wechsler Objective Reading Dimensions." ( Snowling, Bishop, Stothard, Chipchase, & Kaplan, 2006) The researcher found that as long as the delays were resolved by five and a half years, there was a good outcome and positive development. However, as the impairments continued into the later years did develop some psychosocial disorders. This article shows the importance of resolving speech and language issues (Snowling, Bishop, Stothard, Chipchase, & Kaplan, 2006). Snowling expresses that speech and language disorders will cause psychosocial and behavioral issues in the child (Snowling, Bishop, Stothard, Chipchase, & Kaplan, 2006).

Rice agrees with Snowling but focuses more on the effects on children from the way others perceive them. Adults responded to questionnaires after listening to a recording of

children with speech and language disabilities. Then the adults answered questions about their attributes such as intelligence and social maturity. It was found that boys with “good voices” were perceived as being more intelligence than boys with “poor voices” as shown in the table, the higher means fall under those student who are “normally developing”

Table 2. *Mean scores and standard deviations (in parentheses) for individual items*

Items	Communication ability		
	ND	SI	S&L
Message	3.72 (.71)	2.69 (.74)	1.54 (.52)
Smart	3.62 (.48)	3.30 (.44)	2.40 (.50)
Leadership	3.57 (.56)	3.09 (.58)	1.96 (.59)
Likable	3.83 (.53)	3.70 (.54)	2.84 (.55)
Parent education	3.64 (.56)	3.30 (.61)	2.42 (.67)
Parent social status	3.34 (.45)	3.07 (.45)	2.34 (.58)
Social maturity	3.53 (.55)	3.12 (.52)	2.00 (.61)
Academic success	4.22 (.60)	3.66 (.67)	2.37 (.74)

*Note:* ND, normally developing language; SI, speech impaired only; S&L, speech and language impaired.

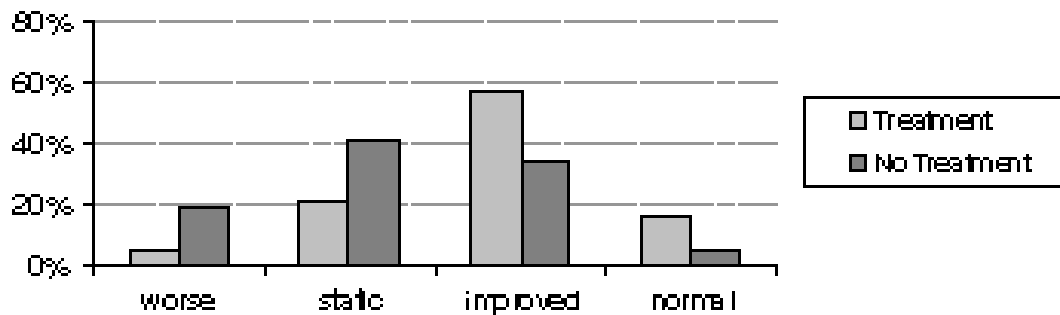
(Rice, Hadley, & Alexander, 2008). The study collected information from adult after they listened to recordings of children that were normally developing (ND), speech impaired, (SI) and speech and language impaired (S&L). Even those without technical training or background were able to classify those children that were “Normally Developing” for their age. Being stereotyped as slow due to improper speech can also lead to behavior and psychological problems in the future (Rice, Hadley, & Alexander, 2008).

Snowling illustrated that children that overcame their speech and language disorder at a young age did not have any psychological or emotional disorders that were related to the disorder. However, if they did not overcome the speech or language disorder at a young age the

children tended to develop emotional difficulties (Snowling, Bishop, Stothard, Chipchase, & Kaplan, 2006). This can be explained by the information found in the article by Rice by discussing the social biases that were discussed in this article. Rice stated that children with speech and language disorders also have behavior disorders (Rice, Hadley, & Alexander, 2008). Snowling argues that children that do not outgrow their speech and language disorder develop behavior problems because they are picked on for their disorder (Snowling, Bishop, Stothard, Chipchase, & Kaplan, 2006).

Another argument about speech and language disorders is whether or not they affect a child's academic achievement. Dodd, McLaughlin, Boudreau, Koutsoftas, Snowling, and Catts argue that speech and language disorders are directly related to a student's academic ability. Nathan believes that language disorders may relate to a child's academic ability, but if a child only has a speech articulation disorder he or she is more likely to succeed at the same rate as their typically developing peers (Nathan, Stackhouse, Goulandris, & Snowling, 2004). On the other hand, Snowling and Catts argue that speech and language impairments can affect a child's academic ability, but that a child is more likely to have difficulty in academic areas if the impairment continues through the older ages (Catts, Fey, Tomblin, & Zhang, 2002). Dodd conducted a study to find the difference between treatment outcomes on students with speech and language disabilities. In this study, there were a range of participants from 0 -11 years of age. They were referred to a program for speech and language impairments by health officials, school officials, and parents. The types of interventions implemented were fixed to each child's needs. They found that treatment was much more effective than no treatment after just 6 months. They found that "About two-thirds of children with comprehension difficulties also had speech difficulties" (Dodd & Broomfield, 2011).

In comparison, Boudreau examined the early developing skills of children with language impairments. In this research, preschool children were matched according to age gender and socioeconomic status and then compared on measures of language, processing, and print-related skills. This was found by having children between 56 and 70 months be compared to typically developing pairs from the same classroom and comparing their knowledge on language, processing and print-related skills (Boudreau & Hedberg, 1999). Boudreau found that children with language impairments performed more poorly than their typical peers on tasks that measured their knowledge of rhyme, letter names, and concepts related to print, but there was not much difference when it came to understanding components of a plot line (Boudreau & Hedberg, 1999).



This figure (above) shows that 15.7% of children in treatment achieved normal functioning when compared to only 5.2 without treatment. This graph represents that when students receive treatment for their speech/language impairment, their academic functioning increases compared to those students who do not receive treatment. According to the graph students without treatment were almost 20% more likely to stay the same or get worse in academic areas where as those students who received treatment were almost 20% more likely to improve or reach normal achievement levels. This article illustrated that children with language impairments have



difficulty with decoding and comprehension which will affect their literacy skills and ability in the future (Boudreau & Hedberg, 1999).

In addition, Koutsoftas did further research to discuss the difficulties of students with language learning disabilities (LLD) with written language in the areas of productivity, complexity and grammar, and the performance of these students on high states testing in comparison to the typically developing peer. It was found that typically developing students (TD) scored much higher than those with LLD on 5 measures and all 6 traits of writing. He found that analytic scores to select treatment goals and document writing progress may not cause better writing scores on expository writing. In order to complete this study, 56 fourth and fifth grade students, some with LLD were asked to produce a narrative and expository writing same. Their writings were measured on oral language, handwriting, accuracy and speed. The table (below) represents the scores of TD and LLD students on their writing abilities (Koutsoftas & Gray, 2012). It illustrates that TD students scored much higher on all aspects of writing. It was found that students with LLD had more errors in their writings and they were not as explanatory or diverse in their writings when compared to the typically developing students. Students with disabilities should have multiple assessments done in order to see what intervention works best for them and how much more support they may need (Koutsoftas & Gray, 2012).

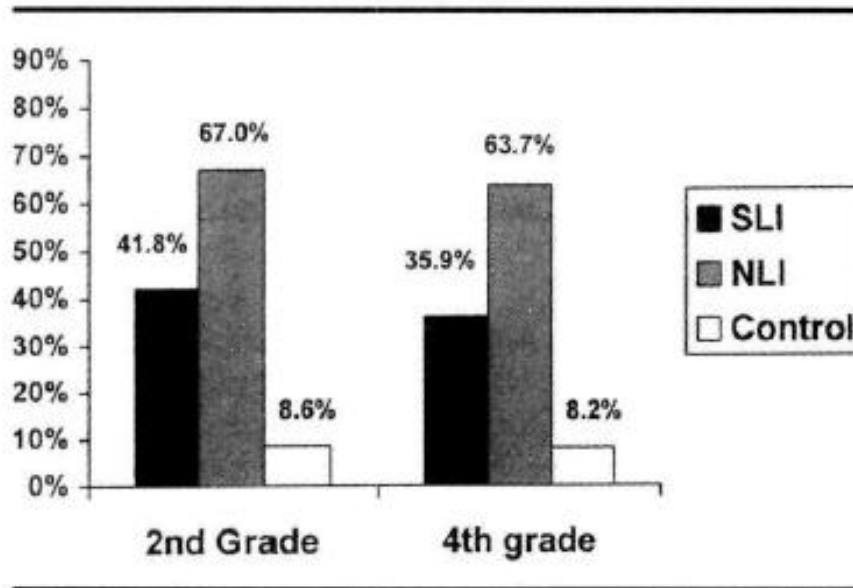
**Table 2.** Means, standard deviations, results of the multivariate analysis of covariance (MANCOVA), and Cohen's *d* comparing group performance on analytic measures for the narrative samples.

		M	SD	F	p	Cohen's <i>d</i>
TNW	TD	168.62	81.02	8.12	.006	.63
	LLD	117.83	64.22			
NDW	TD	36.34	3.03	4.60	.037	.78
	LLD	33.22	4.02			
EPT	TD	.07	.08	6.56	.014	.69
	LLD	.18	.16			
CPT	TD	1.47	.20	10.26	.002	.90
	LLD	1.28	.21			
PDSE	TD	.03	.02	29.17	<.001	1.17
	LLD	.10	.06			
NCE	TD	2.28	1.28	3.00	.089	.35
	LLD	1.83	1.30			

*Note.* TNW = total number of words; NDW = number of different words in the first 50 words; EPT = grammatical errors per T-unit; CPT = clauses per T-unit; PDSE = proportion of different spelling errors; NCE = number of complete episodes. Cohen's *d* (Diener, 2010) was calculated by dividing the mean difference between the two groups by the larger standard deviation.

Catts also researched academic outcomes of children language impairments by examining the reading outcomes of children with language impairments. Those who were given speech and language assistance in kindergarten were followed into second and fourth grades. Then their reading abilities were tested. Outcomes include evidence that children that had SLI in kindergarten had better reading outcomes when their abilities improved by second and fourth grades (Catts, Fey, Tomblin, & Zhang, 2002).

**Figure 1.** Percentage of children in each group meeting the criterion for reading disability in second and fourth grades.



According to the figure (above), children with nonspecific language impairments and specific language impairments both increased when they received early intervention where the control group did not. The author of this article argues that it is not only important to intervene, but also to intervene early in order to assist in reading abilities (Catts, Fey, Tomblin, & Zhang, 2002).

Further discussing reading abilities, Nathan examines the link between early speech difficulties and late literacy development. Some research shows that language rather than speech skills are more highly predictive of literacy outcomes while other research shows that speech difficulties predispose children to reading problems. An investigation by Nathan followed students with primary speech difficulties starting at ages four - six. This article discusses how speech and language disabilities affect the child's ability to learn and how their literacy skills are affected in the future (Nathan, Stackhouse, Goulandris, & Snowling, 2004). In the study research was collected three main questions including: "First, do children classified with speech-only

difficulties at age 4 perform differently from children classified with speech and language difficulties on tests of phonological awareness and literacy at ages 5 and 6 years? Second, do children with persistent speech difficulties at age 6 show poor concurrent phonological awareness and literacy development? Third, what is the relationship between language skills, speech processing abilities (input and output phonology), phonological awareness, and literacy skills?" (Nathan, Stackhouse, Goulandris, & Snowling, 2004) The study was on children from ages four to six, that had speech disabilities that were not due to a physical cause. The study was conducted using a matched samples design and represents evidence that supports the idea that the earlier the speech and language impairments are found and corrected the less likely they are to continue with these problems later (Nathan, Stackhouse, Goulandris, & Snowling, 2004).

Dodd, McLaughlin, Boudreau, Koutsoftas, Snowling, and Catts argue that though it is not always the case, speech and language impairments can affect a child in areas other than speaking.

One argument is presented by McLaughlin; she talks about the debate and purpose of screening children for a delay in speech and language abilities. She discusses the importance of the behavior not only in the clinical setting but across settings such as at home, school or other social environment. McLaughlin goes into detail that the behavior is important across settings because communication is a skill that is used in multiple settings and people need to be able to generalize it. She gives the definition of what a normal development should look like as a child ages as shown in table 1 below and compares it to table 2 of speech and language problems (McLaughlin, 2001).

**Table 1. Developmental Milestones for Speech and Language in Children**

<i>Age</i>	<i>Receptive</i>	<i>Expressive</i>
6 months	Turns to rattling sound* Turns to voice†	Laughs* Vocalizes (cooing)*
9 months	—	Babbles, single syllables* Says "mama" or "dada," nonspecific† Waves "bye-bye"†
12 months	Follows one-step command <sup>15</sup>	Babbles* Imitates vocalizations and sounds* Says one word† Waves "bye-bye"†
15 months	—	Says one word* Says three words† Waves "bye-bye"†
18 months	Points to at least one body part†	Says three words* Says six words†
2 years	Points to two pictures* Follows two-step command <sup>15</sup>	Combines words† Names one picture†
2.5 years	Points to six body parts*	Knows two actions† Names one picture* Speech half understandable†
3 years	—	Knows two adjectives† Names four pictures* Names one color† Speech all understandable†
4 years	—	Defines five words† Names four colors† Speech all understandable*

NOTE: Except where otherwise cited, milestones are adapted from Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents.<sup>14</sup>

\*—More than 90 percent of children pass this item.

†—50 to 90 percent of children pass this item.

**Table 2. Speech and Language Problems in Children**

<i>Disorder</i>	<i>Clinical findings and comments</i>	<i>Treatment and prognosis</i>
<b>Primary (not attributable to another condition)</b>		
Developmental speech and language delay	Speech is delayed. Children have normal comprehension, intelligence, hearing, emotional relationships, and articulation skills. <sup>17</sup>	Speech-language therapy interventions are effective. Parent-provided therapy under the guidance of a clinician is as effective as clinician-provided therapy. Interventions lasting longer than eight weeks may be more effective than those lasting less than eight weeks. <sup>18</sup> Prognosis is excellent. Children typically have normal speech by the age of school entry. <sup>17</sup>
Expressive language disorder	Speech is delayed. Children have normal comprehension, intelligence, hearing, emotional relationships, and articulation skills. Expressive language disorder is difficult to distinguish at an early age from the more common developmental speech and language delay.	Active intervention is necessary because this disorder is not self-correcting. Speech-language therapy interventions are effective. Parent-provided therapy under the guidance of a clinician is as effective as clinician-provided therapy. Interventions lasting longer than eight weeks may be more effective than those lasting less than eight weeks. <sup>18</sup>
Receptive language disorder	Speech is delayed, and also sparse, agrammatic, and indistinct in articulation. Children may not look at or point to objects or persons named by parents (demonstrating a deficit in comprehension). Children have normal responses to nonverbal auditory stimuli.	The effect of speech-language therapy is much smaller than it is for other groups. Parent-provided therapy under the guidance of a clinician is as effective as clinician-provided therapy. Interventions lasting longer than eight weeks may be more effective than those lasting less than eight weeks. <sup>18</sup> It is rare for these children to develop normal oral language capacity. <sup>19</sup>
<b>Secondary (attributable to another condition)</b>		
Autism spectrum disorder	Children have a variety of speech abnormalities, including speech delay (especially with concurrent intellectual disability), echolalia (repeating phrases) without generation of their own novel phrases, difficulty initiating and sustaining conversations, pronoun reversal, and speech and language regression. Children have impaired communication, impaired social interaction, and repetitive behaviors/circumscribed interests. <sup>20</sup>	Children should be referred for developmental evaluation. Children benefit from intensive, early intervention that focuses on increasing communication. <sup>21</sup> Language training programs have been shown to help children communicate. <sup>22</sup>
Cerebral palsy	Speech delay in children with cerebral palsy may be due to difficulty with coordination or spasticity of tongue muscles, hearing loss, coexisting intellectual disability, or a defect in the cerebral cortex.	Speech-language therapy services can include introducing augmentative and alternative communication systems, such as symbol charts or speech synthesizers, enhancing natural forms of communication, and training communication partners. A Cochrane review did not find firm evidence of the positive effects of speech-language therapy, but did find positive trends toward improved communication skills. <sup>23</sup>
Childhood apraxia of speech	Apraxia of speech is a physical problem in which children have difficulty making sounds in the right order, making it hard for their speech to be understood by others. Children communicate with gestures but have difficulty with speech (demonstrating motivation to communicate, but lack of speech ability).	Many different speech-language therapy techniques have been used. A Cochrane review concluded that there were no high-level evidence studies in the literature, and could not definitively advocate a particular approach for clinical practice. <sup>24</sup>
Dysarthria	Dysarthria is a physical problem in which children can have speech difficulties ranging from mild, with slightly slurred articulation and low-pitched voice, to profound, with an inability to produce any recognizable words. Children communicate with gestures but have difficulty with speech (demonstrating motivation to communicate, but lack of speech ability).	Small, observational studies have suggested that for some children, speech-language therapy might be associated with positive changes in intelligibility and clarity of speech. A Cochrane review did not find firm evidence of the effectiveness of speech-language therapy to improve the speech of children with dysarthria acquired before three years of age. <sup>25</sup>

**Table 2. Speech and Language Problems in Children** *(continued)*

<i>Disorder</i>	<i>Clinical findings and comments</i>	<i>Treatment and prognosis</i>
<b>Secondary (attributable to another condition)</b> <i>(continued)</i>		
Hearing loss after spoken language established	Speech and language are often gradually affected, with a decline in the precision of speech articulation and a lack of progress in vocabulary acquisition. Parents may report that the child does not seem to be listening, or describe the child speaking better than listening.	Children with hearing loss should be referred to an audiologist. The audiologist, as part of an interdisciplinary team of professionals, will perform an evaluation and suggest the most appropriate intervention program. Early family-centered intervention promotes language (spoken and/or signed) and cognitive development. Children identified with hearing loss who begin services early may be able to develop language (spoken and/or signed) on par with their hearing peers. <sup>26</sup>
Hearing loss before onset of speech	Speech is delayed. Children may have distortions of speech sounds and prosodic patterns (intonation, rate, rhythm, and loudness of speech). Children may not look at or point to objects or persons named by parents (demonstrating a deficit in comprehension). Children have normal visual communication skills.	Children with hearing loss should be referred to an audiologist. The audiologist, as part of an interdisciplinary team of professionals, will perform an evaluation and suggest the most appropriate intervention program. Early family-centered intervention promotes language (spoken and/or signed) and cognitive development. Children identified with hearing loss who begin services early may be able to develop language (spoken and/or signed) on par with their hearing peers. <sup>26</sup>
Intellectual disability	Speech is delayed. Use of gestures is delayed, and there is a generalized delay in all aspects of developmental milestones. Children may not look at or point to objects or persons named by parents (demonstrating a deficit in comprehension).	Children should be referred for developmental evaluation. This may include referral to a tertiary-level child development center that can provide interdisciplinary evaluations (including speech-language therapy and audiology). Referral should include consultation with a medical geneticist to aid in diagnosing the cause of the intellectual disability. <sup>27</sup>
Selective mutism	Children with selective mutism show a consistent failure to speak in specific social situations (in which there is an expectation for speaking [e.g., at school]) despite speaking in other situations. <sup>20</sup>	Children should be referred to a speech-language pathologist for evaluation, and to a therapist for behavioral and cognitive behavior therapies, which appear to be effective. Parents and teachers can be referred to the Selective Mutism Information and Research Association for advice. <sup>28</sup> Combined intervention including behavioral modification, family participation, school involvement, and in severe cases, treatment with fluoxetine (Prozac) is promising. <sup>28,29</sup>

These tables compare different types and causes of speech and language disorders and how they affect children in comparison to typically developing children (McLaughlin, 2001).

Agreeing with McLaughlin, the purpose of the article by Munro is to test interventions for young children with speech and language impairments. The interventions targeted two components of spoken language: vocabulary knowledge and phonological awareness. In the study, preschool and young school-aged children were tested and data was collected on the two given tasks (Munro, Lee, & Baker, 2008). To conduct these interventions children attended

intervention sessions once a week for six weeks. All sessions were conducted by the same therapist and lasted 60 minutes with 10 minutes to explain home follow up activities. The sessions began with a scripted narrative based on a picture-based story followed by a card game. The stories used literary elements such as rhyme and alliteration. These stories were then discussed and the card game was played. The student had to use phonological awareness and expressive language during the session (Munro, Lee, & Baker, 2008). The results are represented in the graph below.

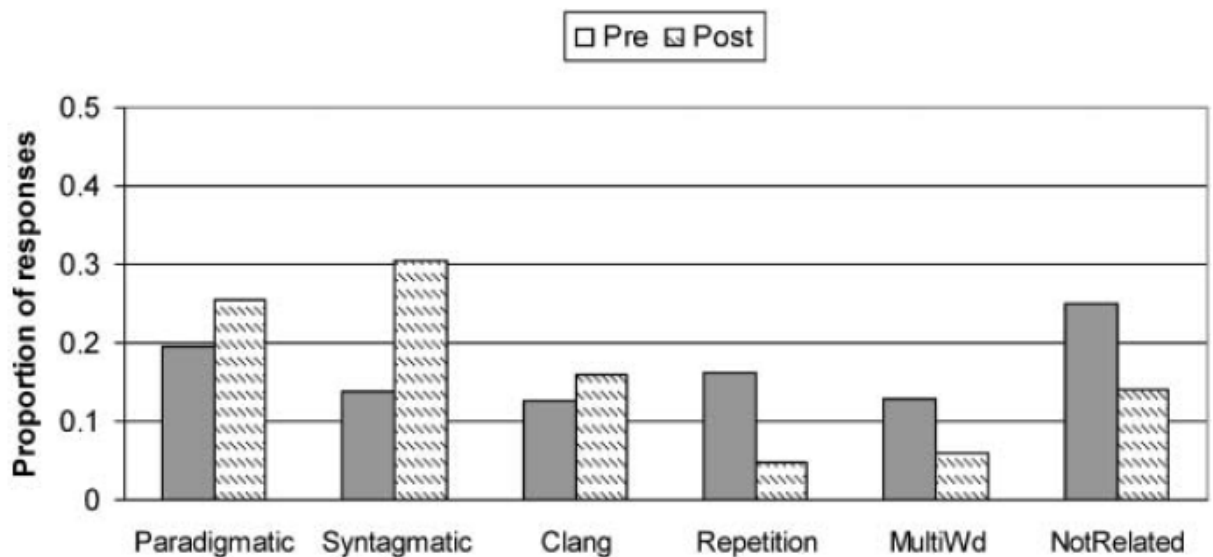


Figure 1. Results for the word-association task showing the proportion of responses in each category for all responses related to the stimulus.

It illustrates that responses that were expected to increase increased and those expected to decrease decreased.

In comparison, these authors, Munro and McLaughlin agree on the fact that there are many different kinds of speech and language disorders, as well as categories of speech and language. Both agree that speech is the verbal production of language, whereas language is the conceptual processing of communication. Language includes receptive language (understanding) and expressive language (the ability to convey information, feelings, thoughts, and ideas).



The last topic to take into consideration is interventions to assist with speech and language impairments. One needs to consider the type, amount and age to begin. Articles, Roulstone, Chiat, Lancaster, Munro, Catts, Nathan, and Dodd offer and explain individual types of therapy, but they ultimately agree that any type of intervention will assist speech and language impairments. Lancaster discusses in detail the advantages and disadvantages of an eclectic approach, using multiple interventions of different methods, but the research showed improvement with both intervention methods. The eclectic approach is a mixture of many treatment methods (Lancaster, Susanna, Levin, Pring & Martin, 2010). One method included therapy by a therapist with homework and assistance carried at home by the parent, and the other method was therapy presented by the parents only. It was found that students that received assistance from a therapist and parents experienced a strong gain where students that only received help from their parents received less gain and students that received no help experienced no change (Lancaster, Susanna, Levin, Pring & Martin, 2010).

Chiat also offers approaches for interventions and identifies types of interventions being used with speech, language and communication needs, why those were the chosen methods, and how well those methods worked. Her research consisted of interviews with people that practiced speech and language therapy. She concluded that students are receiving the kind of help they need based on their disability (Chiat, Pring & Seeff-Gavriel, 2012). It shows that even though some methods work in some areas and specific settings, it does not mean it will work in all settings. It shows the importance of testing your own students' outcomes so that you can see how truly effective each intervention is for that student. Chiat discusses not only the type of intervention but how it should be carried out. For example, intervention 1 is described as an intervention consisting of a 30-minute session each week for 10 weeks followed by the parent

carrying out one activity at home at least twice between sessions. Then she gives a step by step instruction for the intervention:

“ 1. Demonstration with role-playing of actions and visual cues (e.g. using a coloured block or hand gesture) to show that ‘something’ is joined to the end of a word when an action has already occurred.

2. Bombardment: Regular past tenses were used within the context of short stories read at the beginning of the first two sessions.

3. Judgment: In later sessions, role play and sentence judgment tasks were used where B had to say whether the therapist had produced the sentence correctly.

4. Production activities were used to elicit at least 20 examples of the target morpheme per session. The therapist provided a hierarchy of support (modified from Tyler et al., 2003). Initially a choice of two responses was given, e.g. *The boy jump* or *The boy jumped*. Later B was required to complete sentences started by the therapist, e.g. *The children went on holiday and ... in the sand*. Finally, the therapist used the target morpheme in a sentence before asking B to use it in similar sentence, e.g. the therapist and B took turns to find hidden cards and to describe an activity that had been carried out.” (Chiat, Pring & Seeff-Gavriel, 2012)

She follows up by listing the outcomes right below the intervention for each intervention. She discusses whether speech and language delays should be treated separately or together if the child in fact has both a speech and language disability. An example of the experiment that Chiat’s team did on a child identified as “B” to see what type of intervention best improved his ability. Intervention consisted of a 30-minute session each week for 10 weeks. In addition B’s mother carried out one activity at home at least twice between sessions and, after the initial 5 weeks, the school carried out two activities per week. She also explains “Therapy successfully

linked an existing ability to produce /t/ and /d/ with a previous inability to realize the past tense” (Chiat, Pring & Seeff-Gavriel, 2012). This means that a child that could not differentiate the difference in the sounds of /t/ and /d/ when pronouncing past tense words, was able to after therapy (Chiat, Pring & Seeff-Gavriel, 2012). I think that if the child has a speech and language disorder both should be treated simultaneously rather than one by one. I believe there is a connection between the two and therefore they should be treated using this connection.

In addition to Chiat’s research, Lancaster examines the effectiveness of an eclectic approach. Two experiments were conducted to evaluate treatment for children referred to community clinics with phonological disorders. The first group had therapists do treatment and parents do homework with the child that was assigned to the child treatment. The second was treated only by their parents. The third group received no treatment. The authors argue that an eclectic approach can be effective (Lancaster, Susanna, Levin, Pring & Martin, 2010). This article proves that therapy is necessary. This article gives an outline of what types of methods of therapy there are. In addition to research found about different types of methods and interventions, Dodd discusses the difference between treatment outcomes on students with speech and language disabilities. She argues that any intervention assist in the correction of speech and language disabilities (Dodd & Broomfield, 2011).

Overall, any type of intervention is helpful. It is important to start young, because if the impairment is corrected at a younger age, the child is less likely to have difficulty with academics in the future. In society, people with speech and language disorders are viewed as being not as smart as those without the disorders. Because of this, children that continue to have speech and language disorders as they get older tend to have social or emotional difficulties. There is no type of intervention that is proven to be most effective research does suggest that

eclectic approaches and multiple methods of interventions are more popular. However, certain children will respond to interventions differently than others so it is important to address the needs of the child when choosing an intervention. Fortunately, if a child has a speech or language impairment, he or she may not be behind his or her classmates if the impairment is addressed early enough. The key is early and frequent intervention. Speech and language impairments unlike most disabilities can be corrected, and when they are the child is usually able to catch up to his or her typically developing peers and function in everyday society. Any assistance helps and increases the child's ability. Other research to take into consideration include: the ages of the children with speech and language impairments, the social and economic background and their native languages.

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